**Big Hole River Streambank Stabilization and Grayling Habitat Enhancement Project – Wisdom Reach**

**Environmental Assessment Decision Notice**

**Montana Fish, Wildlife & Parks**
**Region Three, Bozeman**
**July 2009**

## Proposed Action

Montana Fish, Wildlife & Parks (FWP) is proposing to provide funding for and implement a project to stabilize approximately 140 feet of streambank directly upstream of the Highway 43 bridge near the town of Wisdom, MT. The streambank along the Big Hole River in the project reach is eroding in a direction such that continued erosion will soon cause fencing along the reach to be destroyed. The erosion of this streambank is also having a negative impact on fish habitat and stream productivity in the area by degrading pool quality and contributing unusually high amounts of fine sediment that may fill interstitial spaces along the river bottom, negatively impacting macroinvertebrate abundance and fish egg survival. This reach of the Big Hole River was once considered important spawning habitat to fluvial Arctic grayling, but recent population monitoring has found only low densities of grayling suggesting that the habitat quality of this reach of river has declined in recent years. Densities of Arctic grayling have dropped in this reach from approximately 14 grayling per mile in 1986 to under one per mile in 2007 (FWP data). This reach of the Big Hole River also supports populations of brook trout, rainbow trout, brown trout, and mountain whitefish.

The proposed project will be implemented in the fall of 2009, most likely during the month of October to take advantage of baseflow conditions and the dormancy of native willows that will be used to revegetate the streambank. Project implementation at this time of year will minimize the turbidity that may be generated during project construction and maximize the survival of transplanted vegetation. The project will occur on both public and private land with about two-thirds (67%) of the project occurring on private land owned by John and Phyllis Erb and one-third (33%) occurring on public land owned by the State of Montana (Department of Transportation Easement). The project area lies within Township 2 South, Range 15 West, and Section 33.

In 2008, Confluence Consulting Incorporated (Confluence) was contracted by FWP to generate a project design that would allow for FWP to secure the necessary state and federal permits and allow for a fair and accurate project bid process for the construction phase of the project. The Montana Department of Transportation (MDOT) was contacted and consulted with during the design phase of the project which included a project site visit with representatives from FWP, MDOT, and Confluence. Representatives from MDOT reviewed the final design and stated support for the project.

The final design calls for building out the streambank approximately 10-15 feet from its current location. The toe of the streambank will be rebuilt with both rounded and angular cobbles with a maximum diameter of 12". This sized material is expected to remain stable at the maximum velocities expected during a 25-year flood event. The upper portion of the streambank will be rebuilt with native vegetation including sodmats and mature willow transplants from local borrow sources. Additional design information and drawings are included in the Appendices. The project will be protected by an agreement with the private landowner not to allow cattle in the pasture along the river until 2012. The landowner has created an access point for fisherman to navigate the riparian fence and encourages fishing on the property with permission. Access for fisherman is also available at the Highway 43 Bridge under the Stream Access Law.

The project will be constructed during low flow conditions in the fall. In order to reduce turbidity levels downstream of the project site, water from the river channel will be diverted down a temporary bypass channel east of the project site. The bypass channel will be designed to accommodate streamflows of up to 135 cfs which is the highest streamflows recorded for that date at the USGS streamflow gaging station located approximately 500 ft downstream of the project location. The bypass channel will be reclaimed, all fill material will be restored and regraded, and disturbed vegetation will be replanted. The diversion of water into the bypass channel has the potential to affect the readings at the U.S. Geological Survey (USGS) streamflow gaging station (# 06024450) located downstream of the HWY 43 Bridge. The USGS will be notified prior to the start of project construction.

All fish stranded in the dewatered channel will be rescued by FWP field crews using a backpack electroshocker and placed in the main channel of the Big Hole River downstream of the project site. The project is expected to be completed in less than six days and will complement seven miles of stream habitat restoration projects completed in the area since 2006.

## Montana Environmental Policy Act

The FWP is required by the Montana Environmental Policy Act (MEPA) to assess significant potential impacts of a proposed action to the human and physical environment. In compliance with MEPA, an Environmental Assessment (EA) was completed for the proposed project by FWP and released for public comment on June 3, 2009.

Public comments on the proposed action were taken for 30 days (through July 3, 2009). The EA was mailed to 25 individuals and groups, and legal notices were printed in the *Montana Standard* (Butte, MT) and the *Dillon Tribune*. The EA was also posted on the FWP webpage: http://fwp.mt.gov//publicnotices/ .

## Summary of Public Comment

No public comments were received during the 30-day period.

## Final Environmental Assessment

There are no modifications necessary to the Draft Environmental Assessment based on public comment. The Draft Environmental Assessment, together with this Decision Notice, will serve as the final document for this proposal.

## Decision

Based on the Environmental Assessment, lack of public comment, and the need to preserve fluvial Arctic grayling and its habitat in the upper Big Hole River watershed, it is my decision to proceed with the effort to improve the streambank stability and habitat in the proposed reach of the Big Hole River.

I find there to be no significant impacts on the human and physical environments associated with this project. Therefore, I conclude that the Environmental Assessment is the appropriate level of analysis, and that an Environmental Impact Statement is not required.

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Patrick J. Flowers
Region Three Supervisor